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REPORT NO.

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## INFORMATION REPORT

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COUNTRY

East Germany

DATE DISTR. 21 April 1953

SUBJECT

RFT Funkwerk Koeppenick  
Development of Ultrasonic Echo-Sounding  
Depth Devices

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SUPPLEMENT TO  
REPORT NO.

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THIS IS UNEVALUATED INFORMATION

1. Dr. Heinrich Weber of the TEM department (Technische Entwicklung, Messgeraete) of Funkwerk Koeppenick, Wendenschlossstrasse 151-158, Berlin-Koeppenick, is in charge of the development of ultra-sonic echo-sounding devices. His chief assistant was (fnu) Reinhard who defected to West Germany at the end of February 1953. Reinhard was replaced by (fnu) Paesler, who is considered a third-rate man in the field.
2. Development of ultra-sonic echo-sounding equipment by the Weber-Reinhard group was based on previous development done in the same field by Gema. The group developed a device called Echolot, the main part of which was a magneto-strictive oscillator of about 20 kcs. A combination of this oscillator with a recorder led to the development of the so-called Echograph, also referred to as Tiefplot (depth sounding device). The recorder indicates the echo on a curved scale calibrated in meters, so that the depth of the sea bottom or any obstruction, such as a school of fish, can be read off directly in meters. The Echograph device presently in development works with condensor discharges in very short intervals in the frequency range from 15 to 25 kcs. The device cannot be operated in depths less than 20 meters. From 20 to 50 meters, it can be operated but it performs poorly. It is a reliable instrument only at greater depths. Less than 50 of the devices are supposed to be constructed during 1953 and sold to East German as well as Russian customers.
3. Another ultra-sonic echo-sounding device, the so-called Flachlot or Flach-echolot is under development in the TEQ department (Technische Entwicklung, Quaritz). This is a device to test material, mainly metals and liquids. Dr. Rudolf Kaiser is in charge of the development; development of the Flachlot is not yet completed. Experiments are being made with quartz oscillators for high frequencies instead of with the nickel oscillators previously used. The frequency range is from 2 to 7 mcs. It was planned to develop the Flachlot into an underwater echo-sounding device for lesser depths under the supervision of Reinhard; his defection has at least temporarily stopped this plan.
4. There are plans for further development of the Echolot into an underwater echo-sounding harbor entrance device (Hafeneinfahrtsgeraet) through a considerable increase of the oscillation frequency. Present plans call

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for a device of this kind with coverage in all reactions. Development will be entrusted to Dr. Kaiser or will be carried out outside of Funkwerk Koepenick. It will be placed under the supervision of the Buero fuer Wirtschaftsfragen when it is approved as a development project. So far Funkwerk Koepenick has not obtained the approval.

25X1A 1/ Comment. Gema, a Russian organization of German technical personnel, was established after 1945 in the premises now occupied by Funkwerk Koepenick.

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